

### **REMARKS/ARGUMENTS**

Claims 1 and 2 have been amended to more clearly recite communication over a network and to generally improve clarity. Claims 3, 7, 10, 13-14, 18, 20, 21, 24, and 25 have been amended to improve clarity. Claim 17 has been cancelled and its subject matter incorporated into claim 16 to reduce fees. Claims 28-30 have been cancelled and rewritten as claims 32-34 to more clearly recite communication over a network and to generally improve clarity. The specification has been amended to clarify applicant's understanding of the disclosure of U.S. Patent No. 5,862,362. No new matter has been added.

#### **Summary of Interview**

Initially, applicants wish to thank the Examiner for the telephone interview which was conducted on September 19, 2007. During the interview, the application, claims, and prior art were discussed. In particular, the applicant stated that the claims require communication over a network between the networked application code (via the client interface) and the simulator (via the server). In sharp contrast, the '362 patent does not communicate over a network. Rather, it simulates a network failure between the protocol layer 63 and the Driver layer 57. There is no communication over a network. The Examiner appeared to agree that the '362 patent does not show communication over the network, but questioned whether this was clearly claimed. Applicants indicated that they would be willing to amend the claims to further clarify communication over a network.

#### **Response to the May 9, 2007 Office Action**

In the Office Action, the Examiner objected to the specification and claims for various informalities. The claims and specification have been amended in the manner suggested by the Examiner. Withdrawal of the Examiner's rejection is therefore requested.

Claims 1, 2, 4, 5, 15 and 16 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,862,362.

Claims 1 and 2 recite:

1. A method for virtually simulating actual networked applications within a network simulation, comprising the steps of:
  - providing a networked application code and a client interface which communicates with the network application code;
  - providing a network simulator that simulates a network of communicating nodes;
  - providing a server that interfaces to the a-network simulator, the server comprising functionality for establishment of a bidirectional mapping of communications of said networked application code to a simulated node in the network simulator;
  - the client interface being aware of the server and communicating with the server over a network;
  - the network simulator being able to interoperate with the server such that communication to the networked application code from the server appears to originate from the simulated node to which the networked application code is mapped; and
  - modifying, via the client interface and the server, the networked application code by removing or inserting messages to or from simulated nodes.
  
2. A method for virtually simulating actual networked applications within a network simulation, comprising the steps of:
  - initiating a server to interface to a network simulator;
  - initiating a client interface to interface with the server over a network, the client interface communicating with a networked application code;
  - bridging the networked application code via the client interface so that the network application code can communicate with the server;
  - mapping the communications of the networked application code to a simulated node in the simulator, communication from the networked application code now appearing to originate from the simulated node; and
  - insertion of and extraction of messages or packets from the networked application code to the simulated node, or from the simulated node to the networked application code, via the clients interface and the server.

The '362 patent, in contrast, is summarized as follows:

the software test tool and method *simulates a network failure by temporarily redirecting calls intended for actual send and receive handlers in a network operating system to "substitute" handler functions*. These substitute handler functions operate to intercept data being sent to or received from the network. In one embodiment of the

invention, the substitute handler then returns a status datum to its caller indicating successful sending or receiving of the data, but does not actually send or receive the data. This effectively cuts off the sending and receiving of data from the network at the substitute handlers. Since no data can be sent or received, the computer is effectively disconnected from the network, as if the network connection were unplugged. The test tool and method resumes network operation by again directing calls to the actual send and receive handler functions.

In alternative embodiments, the substitute handlers can return a status datum to indicate other conditions, such as a network failure. Further, the substitute handlers in some alternative embodiments can intermittently return a status datum indicative of successful sending or receiving, and another status datum indicative of network failure.

'362 patent, col. 1, lines 37-58

Thus, in the '362 patent, there is no “server that interfaces to *a network simulator*, the server comprising functionality for establishment of a bidirectional *mapping of communications of said networked application codes to a simulated node in the network simulator*” where “the network simulator being able to interoperate with the server such that communication to the networked application code from the server *appears to originate from a simulated node* to which the networked application code is mapped” as recited in claim 1, or “initiating a server to interface to a network simulator . . . mapping the communications of the networked application code to a simulated node in the simulator, communication from the networked application code now appearing to originate from the simulated node” as required by claim 2. It should be noted the above-referenced language requires the mapping of the networked application code to the simulated node.

Similarly, the '362 patent fails to disclose the claimed “client interfaces” of claims 1 and 2, or the claimed “modifying, via the client interface and the server, the network application code by removing or inserting messages to or from simulated nodes” of claim 1, or the claimed “insertion of and extraction of messages or packets from the networked application code to the simulated node, or from the simulated node to the networked application code, via the clients interface and the server” of claim 2.

Rather, as explained in the '362 patent, "[b]y intercepting packets at the NDIS layer, the network failure simulation tool 120 *has a similar effect to that of manually disconnecting the network cable from the computer system 20.*" The '362 patent does not incorporate a "network simulator" which can "interoperate with the server such that communication to the networked application code from the server *appears to originate from a simulated node* to which the networked application code is mapped" (claim 1) or "mapping the communications of the networked application code to a simulated node in the simulator, communication from the networked application code now **appearing to originate from the simulated node**" (claim 2). The '362 patent simulates a network failure, namely, manually disconnecting a network cable from the computer system.

In particular, in '362 patent, there is a network server 66 which is software executing on computer 20, which allows computer 20 to be remotely accessed from other computers (col. 4, lines 43-54). There is also described a network simulator 120, again software executing on computer 20, which intercepts communications between the protocol layer 63 and the netcard driver layer 57, thereby simulating a network failure by disrupting communications at the NDIS interface layer : "redirecting calls from the send handler callers 110-112 of the protocol drivers 60-62 which are intended for the send packet handlers 108-109 to the substitute send packet handler 124, and also redirecting calls from the receive handler callers 114-115 of the netcard drivers 58-59 which are intended for the receive packet handlers 92-94 in the protocol drivers 60-62 to the substitute receive packet handler 122." '362 patent, col. 6, lines 35-47.

The Examiner appears to allege that the NDIS layer is the client interface. Thus, the alleged network simulator 120 does not "interoperate with the server such that communication to the networked application code from the server appears to originate from a simulated node to which the networked application code is mapped," as required by claim 1, and there is no "mapping the communications of the networked application code to a simulated node in the simulator, communication from the networked application code now appearing to originate from the simulated node" as required by claim 2. To the contrary, the network simulator interoperates with the protocol drivers and the network drivers. It has no interaction or effect at all on the server 66.

Further, and as discussed during the interview, the claims require communication over a network between the networked application code (via the client<sup>1</sup> interface) and the simulator (via the server). Claim 1 requires “the client interface being aware of the server and communicating with the server over a network.” Claim 2 requires “initiating a client interface to interface with the server over a network.” The ‘362 patent prior art does not communicate over a network. It simply simulates a network failure between the protocol layer 63 and the Driver layer 57. There is no communication over a network as claimed.

For the foregoing reasons, withdrawal of the Examiner’s rejection of claims 1, 2, 4, 5, 15, and 16 is respectfully requested.

The Examiner has also rejected dependent claims 3, 6-14, and 18-27 as obvious over the ‘362 patent in view of U.S. Patent No. 6,134,514 to Liu. Inasmuch as the ‘514 patent is relied upon by the Examiner solely for allegedly disclosing the additional limitations of these dependent claims, the addition of the ‘514 patent cannot cure the deficiencies in the ‘362 patent identified above. Withdrawal of the Examiner’s rejection of claims 3, 6-14, and 17-27 is therefore respectfully requested. As new claims 31 and 32 depend from claims 1 and 2, respectively, consideration and allowance of these claims is respectfully requested.

Claim 33 recites:

33 (New) A computer system for virtually simulating actual networked applications within a network simulation comprising:

a plurality of clients, each client having a client interface, the client interface communicating with an associated networked application code executing on the client;

a network simulator including a plurality of simulated nodes;

a server, the server having functionality for interfacing to the network simulator;

and **wherein each client communicates with the server over a network,**

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1. It is noted that the interface is referred to as a “client” interface to indicate its relation to the “server”. The networked application code can be of any network application type (server, client, P2P, etc). See claim 7, for example.

and wherein each client executes the networked application code and the client interface so that the networked application code can communicate with the server,

and wherein the client interface **maps the networked application code to one of the simulated nodes so that communication from the networked application code now appears to originate from the simulated node**, and inserts and extracts messages or packets from the networked application code.

As such, applicant respectfully submit that claim 33, and claim 34 depending therefrom, is allowable over the prior art. Consideration and allowance of claims 33 and 34 is therefore requested.

### CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

Respectfully submitted,  
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